

Remarks

In the Action mailed September 29, 2003, the Examiner rejected claims 1-7, 9-14 and 16-19 under § 102(b) based upon U.S. Re 35,293 to Hiraoka et al.

In addition, claims 21-23 were rejected under 35 U.S.C. § 103(a) as unpatentable over the '293 patent in view of U.S. patent 5,508,350 to Cadorniga et al.

In view of the amendments and remarks set forth herein, it is respectfully urged that all pending claims are in condition for allowance.

A. Rejection of Claims 1-7, 9-14, and 16-19 Under § 102(b) Based Upon U.S. Re 35,293 to Hiraoka et al. Must Be Withdrawn

In support of this ground of rejection, the Examiner asserted:

Claims 1-7, 9-14, 16-18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiraoka et al (Re 35,293). Regarding claim 1, Hiraoka discloses a golf ball comprising a core made from a polybutadiene (A). Polybutadiene (A) may be commercially available BUNA CB 10 (col 1, lines 52-67). According to applicant's spec page 11, table 3 BUNA CB 10 has a solution viscosity of 140 ± 20 mPa*s. Regarding claim 2, the COR value is an inherent feature since the polybutadiene is identical to applicant's. Regarding claim 3, applicant appears to be claiming a method of production which is not relevant to the final product. However, any properties based on the polybutadiene are inherent since applicant's is identical to Hiraoka. Regarding claim 4, Hiraoka discloses a Mooney viscosity range from 45 to 90 (col 1, line 59) and applicant discloses BUNA CB 10 has a Mooney viscosity of 47 ± 5 (spec table 3). Regarding line 5, the golf ball includes a cover (col 2, lines 58-61). Regarding claim 6, the polybutadiene has a 1-4 cis content of 80% or more (col 1, lines 53-55) and applicant discloses BUNA CB 10 has a 1-4 cis content of 96% or more (page 11, table 3). Regarding claim 7, the core composition includes a second polybutadiene (B) (col 2, lines 1-5). Regarding claim 9, the COR value is an inherent feature since the polybutadiene is identical to applicant's. Regarding claim 10, Hiraoka discloses a golf ball comprising a core made from a polybutadiene (A). Polybutadiene (A) may be commercially available BUNA CB 10 (col 1, lines 52-67). According to applicant's spec page 11, table 3 BUNA CB 10 has a solution viscosity of 140 ± 20 . The COR value is an inherent feature since the polybutadiene is identical to applicant's. Regarding claim 11, the polybutadiene has a 1-4 cis content of 80% or more (col 1, lines 53-55) and applicant discloses BUNA CB 10 has a 1-4 cis content of 96% or more (page 11, table 3). Regarding claim 12, applicant appears to be claiming a method of production which is not relevant to the final product. However, any properties based on the polybutadiene are inherent since applicant's is identical to Hiraoka. Regarding claim 13, the core composition includes a second polybutadiene (B) (col 2, lines 1-5). Regarding claim 14, Hiraoka discloses a Mooney viscosity range from 45 to 90 (col 1, line 59) and applicant discloses BUNA CB 10 has a Mooney viscosity of 47 ± 5 (spec table 3). Regarding claims 16 and 17, Hiraoka discloses the method of making a golf ball including selecting BUNA

CB 10 for the core material and molding the core composition (col 2, lines 55-60). The performance features of the core are inherent since the material is identical to applicants. Regarding claim 18, the features of the polybutadiene are inherent since the material is identical to applicants. Regarding claim 19, Hiroaka discloses a Mooney viscosity range from 45 to 90 (col 1, line 59) and applicant discloses BUNA CB 10 has a Mooney viscosity of 47 ± 5 (spec table 3).

Pages 2-3 of the September 29, 2003 Office Action.

Claim 1 has been cancelled and so, the rejection of that claim is moot.

Claim 2 recites that the core exhibits a coefficient of restitution of at least about 0.780. The Examiner rejected this claim on grounds that "the COR value is an inherent feature since the polybutadiene is identical to applicant's." No. The '293 patent fails to disclose any COR values. Apparently, the Examiner recognizes this and so, bases the anticipation rejection upon an inherency argument. However, in order to properly reject a claim under § 102 for inherency, the aspect at issue must necessarily be present in the subject matter described in the reference. "Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency." *Scaltech Inc. v. Retec/Tetra, LLC*, 178 F.3d 1378, 51 USPQ2d 1055 (Fed Cir. 1999), *revising*, 156 F.3d 1193, 48 USPQ2d 1037 (Fed Cir. 1998).

The '293 patent discloses a golf ball core formed from two rubbers, one of which exhibits a range of solution viscosities that partially (and only minimally) overlaps a range of solution viscosities recited in claim 2. The second rubber of the '293 patent is a liquid rubber and has a relatively low molecular weight, i.e. 1,000 to 50,000. In fact, it is noted in the '293 patent that "[m]olecular weights outside the range deteriorate compression and impact resilience of the resulting golf balls." See col 2, lines 1-17, of the '293 patent. The core of the golf ball disclosed in the '293 patent, formed from two rubbers, one of which is entirely different than any of the one or more rubbers used in the cores of the presently claimed golf balls, would not necessarily exhibit a COR of at least 0.780 as recited in claim 2. The Examiner has not presented any explanation, reasons, or factual grounds to support her position that the core of the '293 patent, formed from a low molecular weight liquid rubber would necessarily exhibit a COR of at least 0.780. The inherency rejection of claim 2 must be withdrawn as a matter of law.

Claim 3 is dependent from claim 2 and so, contains all of the recitations from that claim. Since claim 2 is not anticipated by the '293 patent, neither is claim 3.

Claim 4 is dependent from claim 3 and so, contains all of the recitations from that claim. Since claim 3 is not anticipated by the '293 patent, neither is claim 4.

Claims 5-7 have been amended to change their dependency from claim 1 to claim 2. Since claim 2 is not anticipated by the '293 patent, neither are claims 5-7.

Claim 9 is dependent from claim 2 and so contains all of the recitations from that claim. Since claim 2 is not anticipated by the '293 patent, neither is claim 9.

Independent claim 10 is not anticipated by the '293 patent since claim 10 recites that the core exhibits a coefficient of restitution of at least about 0.783. The Re 35,293 document is entirely silent as to the values of coefficients of restitution that its cores may exhibit. For the same reasons expressed with regard to claim 2, claim 10 is not anticipated under an inherency argument by the '293 patent. For at least these reasons, the '293 document fails to anticipate claim 10 and its dependent claims.

Claims 11-14 each depend from claim 10 and so, each contains all of the recitations of that claim. Since claim 10 is not anticipated by the '293 patent, then neither are any of dependent claims 11-14.

Claim 16 has been amended to recite that the core that is molded exhibits a COR of at least 0.780. For the same reasons as expressed with regard to claim 2, claim 16 is not anticipated under an inherency argument by the '293 patent.

Each of claims 17-19 depends from claim 16 and so, contains all of the recitations of that claim. Since claim 16 is not anticipated by the '293 patent, then neither are any of claims 17-19.

In view of the foregoing, all of claims 2-7, 9-14, and 16-19 are patentable over the '293 patent.

B. Rejection of Claims 21-23 Under § 103(a) Based upon U.S. R 35,293 in view of U.S. 5,508,350 Must be Withdrawn

In support of this rejection, the Examiner contended:

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraoka et al (Re 35,293) in view of Cadorniga et al (5,508,350). Hiraoka discloses a golf ball comprising a core made from a polybutadiene (A) and a second polybutadiene (B) (col 2, lines 1-5). Hiraoka further discloses up to 25% of the second polybutadiene but does not disclose the range claimed by applicant. Cadorniga teaches 50% of two different polybutadienes in a golf ball core. One of ordinary skill in the art would have increased the quantity of the second polybutadiene to achieve the desired properties of the core.

Page 4 of the September 29, 2003 Office Action.

Claims 21-23 are directed to a unique embodiment of the present invention golf balls when such balls utilize cores formed from two or more particular polybutadiene rubbers. Claims 21 and 22 are ultimately dependent from independent claims 2 and 10, respectively, and recite particular weight percent ranges for a second polybutadiene rubber used in the cores of the claimed golf balls. Specifically, the second rubber is present in an amount of from about 30% to about 50%. Claim 23, although an independent claim, recites a particular set of weight percentages for two polybutadiene rubbers that are used in a core of a claimed golf ball. The secondary rubber is recited as present in an amount of from about 30% to about 50%. Claim 23 additionally recites a particular range of solution viscosities for the primary polybutadiene rubber.

The '293 document entirely fails to disclose these aspects. Instead, the '293 document specifically instructs using 25% or less of a second polybutadiene component. See col. 2, lines 17-24.

If one followed the teachings of the '293 patent, one would be motivated to use less than 25% of a second polybutadiene. Moreover, the '293 patent instructs the use of a liquid, low molecular weight rubber. This teaching would actually steer an artisan away from the subject matter of the claims at issue.

The Examiner cites the '350 patent to Cadorniga et al. in an attempt to provide a teaching of using 50% of two different polybutadienes in a golf ball core. However, there is no suggestion or teaching in the art to combine the '293 patent and the '350 patent. The Examiner has not provided any reasons, factual grounds, or even an argument as to why these patents are properly combinable.

Moreover, a closer reading of the '293 patent reveals that it instructs against using as a second polybutadiene, a rubber having a molecular weight of outside the range of 1,000 to 50,000. Instead, the '293 patent teaches that if a

second rubber is used, it should exhibit a molecular weight within this range, as its liquid rubbers exhibit. The '350 patent relied upon by the Examiner teaches the use of non-liquid secondary rubbers. Based upon the express provisions in the '293 patent, one would not look to the '350 patent. Moreover, there is no suggestion to combine these patents. There is no suggestion because the patents teach away from each other. Additionally, all of the golf ball cores produced according to the '350 patent exhibit COR's significantly less than the recited minimum value of 0.780 and 0.783 in claims 2 and 10, respectively.

In view of the foregoing, each of claims 21-23 is patentable over the '293 and '350 patents.

C. Conclusion

In view of the foregoing, it is respectfully submitted that all claims 2-7, 9-14, 16-19 and 21-23 are in condition for allowance. In the event that the Examiner maintains the rejection of any of these claims, Applicant requests that the amendments to claims 2, 5-7, and 16 be entered for purposes of appeal. These amendments place the claims in condition for an efficient review if appealed. The amendments do not require a new search since the subject matter of all claims has previously been before the Examiner.

Respectfully submitted,
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